

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-030063**Date Inspected:** 19-Sep-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Bernie Docena, Scott Kortum**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) JV job site between the times noted above in order to monitor ABF Quality Control activities and the in process work being performed by ABF production personnel. The following items were observed:

ESW Repair Welding

RWR-201308-004

ESW S-043, Location "T"-Face A:

The QA Inspector observed that ABF welder Mike Jimenez (WID-4671) had completed Shield Metal Arc Welding (SMAW) on the repair excavation of Electroslag Weld (ESW) "T" (Face A) @ Y=3000mm~3480mm. The repair excavation dimensions were: L=480mm, W=75mm, D=40mm. Mr. Jimenez was observed performing the post heat stress relief with the Miller ProHeat 35 heat induction system. The temperature will be taken down from 350° Fahrenheit with a minimum 3 hr. cool rate at 75° F an hour max rate. ABF QC Inspector Bernie Docena also stated that once the weld is ground flush and the 48hr cooling time is met, ABF QC will perform final inspections at this repair location.

ESW Repair excavation

RWR-201308-009

ESW W-042, Location "M"-Face B:

The QA Inspector later observed ABF welder Mike Jimenez (WID-4671) performing excavation of ESW "M" at Face B, Y= 4400mm to verify indications observed during Ultrasonic Testing with pulse/echo & pitch/catch. Mr. Jimenez was performing the excavation using an air carbon arc gouging and a grinder. Mr. Jimenez was instructed

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by ABF QC Inspector Scott Kortum to notify him when indications are visible to allow QC/QA time to inspect the excavation. The repair location was noted as:

Weld excavated at: D=10mm- No indications observed.

The excavation work ESW "M" commenced near the end of the shift and is still in progress. ABF QC Inspector Scott Kortum stated that the work is expected to continue on 9-20-13 at this location and he would be monitoring the work.

ESW Repair Welding

RWR-201308-002

ESW N-043, Location "P"-Face A:

The QA Inspector observed ABF welder Donald Plumb (WID-0891) performing Shield Metal Arc Welding (SMAW) on the repair excavation of Electroslag Weld (ESW) "P" Face A@ Original Y-1330mm. Location of the repair is as follows:

(Y=1270mm~1470mm) L-270mm, W= 50mm, D= 55mm.

Prior to welding, Mr. Plumb was observed preheating the weld to over 300° Fahrenheit using the Miller ProHeat 35 with heat induction blankets and a propylene torch. The welder was using 4.0mm diameter electrode (E7018-1 HR4) per ABF Welding Procedure Specification (WPS) ABF-WPS-D15-1000-Repair Rev.3. The welding process in use was the Shielded Metal Arc Welding process (SMAW). ABF QC Inspector Bernie Docena performed welding parameters verifications at random intervals throughout the shift and informed the QA Inspector that average welding amps were at 180. The QA Inspector also verified that preheat was over 300° F. with Tempilstik temperature indicator. The welding observed appeared to be in compliance with the WPS noted above.



Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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Inspected By:	Adame,Joe	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer
